

Serial No.: 10/053,012

### **REMARKS**

These remarks follow the order of the paragraphs of the office action. Relevant portions of the office action are shown indented and italicized.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 101***

2. *35 U.S.C. 101 reads as follows:*

*Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.*

3. *Claim 22 is not limited to tangible embodiments. In view of Applicant's disclosure, specification page 13 lines 24 and 25, the means is not limited to tangible embodiments, instead being defined as including both tangible embodiments (i.e. hardware or a combination of hardware and software) and intangible embodiments (Le. software only). As such, the claim is not limited to statutory subject matter and is therefore non-statutory.*

Applicant respectfully states that claim 22 is amended to include at least one tangible means. This overcomes the 35 USC 101 rejection of claim 22.

#### ***Claim Rejections - 35 USC § 112***

4. *The following is a quotation of the second paragraph of 35 U.S.C. 112: The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

5. *Claims 3 and 7 are rejected under 35 U. S. C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

6. *Claim 3 recites a specific limitation to an entity of a Markush listing. This claim does not further limit the claim since the URI in claim 2 is not required, thereby not requiring the limitations of claim 3. Correction is required.*

**DOCKET NUMBER: YOR920010561US2**

-7/13-

Serial No.: 10/053,012

Applicant respectfully states that claim 3 is amended to depend upon claim 1, which is not a Markush listing. This overcomes the 35 USC 112 rejection of claim 3.

7. *Claim 7 recites a specific limitation to an entity of a Markush listing. This claim does not further limit the claim since the action of dropping of claim 6 is not required, thereby not requiring the limitations of claim 7. Correction is required.*

Applicant respectfully states that claim 7 is amended to depend upon claim 1, which is not a Markush listing. This overcomes the 35 USC 112 rejection of claim 7.

#### ***Claim Rejections - 35 USC § 102***

8. *The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:*

*A person shall be entitled to a patent unless (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.*

*Claims 1-14, and 18-20,22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor et al. (USPN 6,728,885).*

Applicant respectfully states that the present invention is directed to the field of operating systems and computer networking. It is more particularly directed to enable content-aware service differentiation in servers which communicate with clients over a network.

The present invention is directed toward service differentiation for packets input into a computer system, it is not directed toward security of a computer system. For example, the present invention differentiates based on dropping connections at a given rate to allow the accepted connections to get better service. The connection can be accepted at a given burst rate or rate per unit of time. Another example of service differentiation is setting policies to set priorities on a connections. Higher priority connections are placed at a higher position in the accept queue. Thus the present invention can provide for providing different levels of service for a web request

**DOCKET NUMBER: YOR920010561US2**

-8/13-

Serial No.: 10/053,012

including a actions to rate control, prioritize, schedule, monitor and police requests to provide multiple levels of service based on the content of requests.

The Taylor invention is directed to providing multilevel security and does not address providing multiple levels of service..

9. Referring to claim 1, Taylor discloses a method comprising differentiating at least one service class in a kernel to perform service differentiation based on content in at least one data packet, including the steps of:

*capturing at least one data packet until a complete application header is detected (an inherent feature of capturing a packet at a NIC as disclosed in Taylor is that an application header is also captured) (col. 5, lines 30-32);*

*parsing said complete application header to determine at least one application tag (i.e. attribute information such as source and destination address which are contained in the application header) (col. 6, line 15-17);*

*matching said at least one application tag to at least one matching rule (col. 6, lines 32-37);*

*determining a presence of at least one match with said at least one matching rule (i.e. checking the relevant information on the SYN packet sent by DPF 207) (col. 6, lines 32-37; col. 10, line 57 to col. 11, line 10); and*

*performing service differentiation (i.e. discarding packet if determined not to allow connection or creating a new connection and applying the corresponding rule to any subsequent packets from that connection until the connection s disconnected) (col. 6, lines 61-65).*

Applicant respectfully states that a review of Taylor shows that Taylor does not provide for differentiation of at least on service class in a kernel. The Taylor patent does not perform the steps of the invention of claim 1 of capturing, matching, determining and performing for service differentiation. Thus claim 1 is allowable over Taylor.

10. Referring to claim 2, Taylor discloses the application tag includes a request method (i. e. filter to all "telnet" packets) (col. 6, lines 28-30).

Applicant respectfully states that claim 2 reads,

**DOCKET NUMBER: YOR920010561US2**

-9/13-

Serial No.: 10/053,012

2. A method as in claim 1, wherein said at least one application tag includes at least one tag taken from a group of tags including: URI, cookie, request method, HTTP version, a tag in an application protocol, and a tag in a communication protocol.

Thus, Taylor apparently does not implement the tags of claim 2. Taylor mentions telnet, and FTP but not HTTP type headers or tags in application protocols. Thus claim 2 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

11. Referring to claim 3, it is an inherent feature in HTTP that the URI is the second string in the HTTP header, (the first string is the action word, such as GET POST HEAD SYN, etc.).

Applicant respectfully states that claim 3 reads:"

3. (currently amended) A method as in claim 2, 1, wherein said at least one application tag is a URI, and wherein the URI is the second string in a HTTP header and the cookie starts with a cookie delimiter as defined in an application protocol.

Taylor does not deal with the limitation in claim 3 such as the URI's and cookies. Thus claim 3 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

12. Referring to claim 4, Taylor discloses employing a table having at least one matching rule (col. 6, lines 53-57).

Applicant respectfully states that Taylor does not provide a table of rules for service differentiation, Taylor rules are system security. Thus claim 4 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

13. Referring to claim 5, Taylor discloses finding a best match (i.e. a rule which best fits the packet, such as the type of protocol used) (col. 6, lines 25-43).

DOCKET NUMBER: YOR920010561US2

-10/13-

Serial No.: 10/053,012

Applicant respectfully states that Taylor does not provide a finding best match for service differentiation, Taylor's best fit are for system security. Thus claim 5 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

14. Referring to claim 6, Taylor discloses service differentiation includes dropping (Le. discarding a packet) (col. 6, lines 61-65).

Applicant respectfully states that Taylor does not provide dropping a packet for service differentiation, Taylor's provides connection dropping for system security. Taylor does not include service differentiation actions of claim 6. Thus claim 6 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

15. Referring to claim 7, Taylor discloses dropping includes discarding a connection (i.e. do not allow a connection) (col. 6, lines 61-65).

Applicant respectfully states that Taylor does not provide dropping a packet for service differentiation, Taylor's provides connection dropping for system security. Taylor does not include service differentiation actions of claim 6. Thus claim 7 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

16. Referring to claim 8, Taylor discloses said action includes protocol control (i.e. setting up a new connection) (col. 6, lines 61-65).

Applicant respectfully states that the examiner apparently that Taylor does not the group ACK's in claim 8 besides any protocol control that Taylor may do are performed for security purposes rather than service differentiation. Thus claim 8 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

17. Referring to claim 9, Taylor discloses installing at least one matching rule (col. 6, lines 44-57).

Applicant respectfully states that Taylor's rules are not for service differentiation as in claim 9. Thus claim 9 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

DOCKET NUMBER: YOR920010561US2

-11/13-

Serial No.: 10/053,012

18. Referring to claims 10 and 11, Taylor discloses detecting establishment of a new TCP connection (col. 6, line 60 to col. 7, line 10).

Applicant respectfully states that any Taylor apparently filter connection establishment for security purposes not to provide differentiated services for the said connection. Thus claims 10 and 11 are allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

19. Referring to claim 12, Taylor discloses the step of establishing a new TCP connection includes receiving a SYN packet, sending a SYN-ACK packet, deferring accept, receiving ACK for SYN-ACK and deferring notification of data packet (this is an inherent feature of the HTTP basic 3-way handshake for Connection synchronization which can be found in the Transmission Control Protocol DARPA Internet program Protocol Specification September 1981 prepared by Information Sciences Institute, USC, page. 31 Figure 7) (col. 5, lines 55-60).

Applicant respectfully states that claim 12 is monitoring establishment of the connection in order to provide service differentiation on the connection, not security like the Taylor patent. Thus claim 12 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

20. Referring to claim 13, detecting application header delimiters for said data packet is an inherent feature of Taylor since without this detection step, the system would not know where the header starts and ends.

Applicant respectfully states that Taylor's detection of the application header delimiters is for the purpose of system security. Claim 13 is capturing the application header for the purpose of service differentiation. Thus claim 13 is allowable over Taylor for itself and because it depends on allowable claim 1 regarding service differentiation.

21. Claims 14, and 18-20, 22, and 23 are rejected for similar reasons as stated above.

Applicant respectfully states that claim 14 and 18-20, 22, and 23 are apparatus and Beauregard claims for service differentiation, providing better service for a client web request. The Taylor

DOCKET NUMBER: YOR920010561US2

-12/13-

Serial No.: 10/053,012

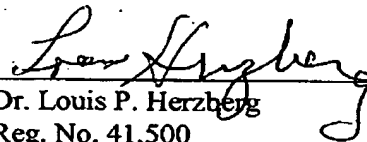
patent is for security, and does not include the elements of these claims for differentiation. Thus claim 14 and 18-20, 22, and 23 are allowable over Taylor for themselves.

It is anticipated that this amendment brings the application to allowance of claims 1-14 and 18-20, 22, and 23 and favorable action is respectfully solicited.

Please charge any fee necessary to enter this paper to deposit account 50-0510.

Respectfully submitted,

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DOCKET NUMBER: YOR920010561US2

-13/13-